

AMENDMENTS TO THE SPECIFICATION

Please delete the paragraph beginning on line 12 of page 6:

~~Fig. 3 is a schematic depiction of mark formation in accordance with the present invention.~~

Please replace the paragraph beginning on line 9 of page 14 with the following replacement paragraph:

Referring now to Fig. 1, generally depicted therein at 10 is a plan view of an optical disk with an exploded view 14 taken at 12 of a partially recorded track 34. The track 34 is divided into a plurality of predetermined data cells 16, 18, 20, 22, 24, 26 of uniform dimension (as shown by the dotted lines which are depicted for illustration purposes only). The track 34 is recorded with a plurality of marks 28, 30, 32, the marks formed for multilevel recording having multiple recording levels to allow for more than 2 bits of information. The marks are written to the track 34 using the methods of the present invention ~~using an energy source 8 that provides energy pulses 6~~, as described in detail herein above and below. The recording level of each mark is differentiated by the areal or volume fraction of the crystalline/amorphous states per data cell. The marks 28, 30, 32 are amorphous and provide three different levels of reflectivity. As shown, the recording levels are determined by mark width W while mark length L is kept constant between marks. Thus, a data cell having a mark with a narrower width, such as mark 32, will have a relatively higher reflectivity value than data cell 20 having a wider mark, such as mark 28.

Please delete the following paragraph beginning on line 7 of page 30:

~~—Referring now to Fig. 3, there is shown the application of energy 210 having a spatial profile 215 to an optical recording medium comprising a phase change material 205. The spatial profile 215 defines a region of spatial overlap 220 of the energy 210 with the optical recording medium 205. The energy 210 provides a temperature profile 230 within the region of spatial overlap 220, where the temperature profile 230 defines a spatial distribution of temperatures 240 within the region of spatial overlap 220. The spatial distribution 240 includes a range of temperatures 250 that are sufficiently high to permit formation of an amorphous phase in the region of spatial overlap 220. The range of temperatures 250 coincides with the region of mark formation 260, where the mark 280 comprises an amorphous phase and forms upon the cooling of the region of spatial overlap 220. In accordance with the instant invention, the cooling is accompanied by a release of excess energy from the region of mark formation 260 to surrounding region 265 that occurs at a rate sufficient to prevent the formation of an amorphous phase in surrounding region 265, thereby preserving the boundaries of the region of mark formation during cooling and providing a mark 280 having boundaries that coincide with those of mark formation region 260.~~